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FUNCTION EXECUTION METHOD, FUNCTION EXECUTION APPARATUS,
10 COMPUTER PROGRAM AND RECORDED MEDIUM

ABSTRACT OF THE DISCLOSURE

A function execution method, a function execution apparatus, a
computer program and a recorded medium to execute a program of stacking,
15 in a stack area of a memory, a function record area according to a format of
an invoked function which is invoked by an invoking function including a
process to invoke another function, invoking the invoked function, executing
the invoked function and then discarding the stacked function record area,
wherein a predetermined alternative function which substitutes the invoking
20 function is executed when it is judged, from analysis of the invoking function
by byte-code such as a JVM, that the invoking function is a trail-recursive
invoking function, so that the alternative function as an invoking function
invokes the invoked function utilizing the function record area utilized for
executing the invoking function and the invoked function which has been
25 invoked is executed.